Listing of the Claims:

1.   (Original) An apparatus for a wireless communication system supporting packet data transmissions, comprising:

means for receiving a rate request indicator DRR for a mobile station;

means for determining a fairness parameter α for the mobile station;

means for calculating a projected throughput value T' for the mobile station as a function of the rate request indicator;

means for calculating a priority function for the mobile station as $DRR/(T')^{\alpha}$; and

means for scheduling transmissions to the mobile stations according to the priority functions.

2.   (Original) The apparatus as in claim 1, wherein the means for calculating the priority function further comprises means for calculating the priority function using a monotonic function of $(T')^{\alpha}$.

3.   (Original) The apparatus of claim 1, wherein each of the rate request indicators is a data rate request received from one of the plurality of mobile stations.

4.   (Original) The apparatus of claim 1, wherein each of the rate request indicators is a carrier-to-interference ratio received from one of the plurality of mobile stations.

5.   (Original) The apparatus of claim 1, further comprising:

means for transmitting data to the plurality of mobile stations in response to scheduling transmissions.

6.   (Original) The apparatus of claim 1, further comprising:

means for updating the priority functions of scheduled mobile stations as a function of the rate request indicator.

7.   (Original) The apparatus of claim 6, further comprising:

means for updating the priority functions of non-scheduled mobile stations assuming the

rate request indicator is equal to zero.

8.   (Original) An apparatus for scheduling packet data transactions in a wireless communication system, comprising:

means for determining a pool of users;

means for calculating a priority function of at least a portion of the pool of users;

means for scheduling a first set of users having pending data transactions from the portion of the pool of users;

means for receiving rate request indicators from the portion of the pool of users; and

means for updating priority functions of the first set of users as the rate request indicators divided by a function of projected throughput and a fairness parameter.

9.   (Original) The apparatus of claim 8, further comprising:

means for updating a second set of users within the portion of the pool of users different from the first set of users using a rate request of zero.

10.   (Original) The apparatus as in claim 8, wherein the portion of the pool of users are users having pending data.

11.   (Original) The apparatus as in claim 10, wherein the first set of users comprises one user.

12.   (Canceled)

13.   (Canceled)

14.   (Currently Amended) A ~~computer readable~~ non-transitory medium encoded with ~~computer~~ executable instructions for:

receiving a rate request indicator DRR for a mobile station;

determining a fairness parameter α for the mobile station;

calculating a projected throughput value T' for the mobile station as a function of the rate request indicator;

calculating a priority function for the mobile station as $DRR/(T')^{\alpha}$; and

scheduling transmissions to the mobile stations according to the priority functions.

15.   (Currently Amended) A ~~computer-readable~~ non-transitory medium encoded with ~~computer-~~executable instructions for:

.   determining a pool of users;

calculating a priority function of at least a portion of the pool of users;

scheduling a first set of users having pending data transactions from the portion of the pool of users;

receiving rate request indicators from the portion of the pool of users; and

updating priority functions of the first set of users as the rate request indicators divided by a function of projected throughput and a fairness parameter.

16.   (Previously Presented) An apparatus comprising:

a memory storage device; and

a processor coupled to said memory storage device, the processor being configured to:

receive a rate request indicator DRR for a mobile station;

determine a fairness parameter α for the mobile station;

calculate a projected throughput value T' for the mobile station as a function of the rate request indicator;

calculate a priority function for the mobile station as $DRR/(T')^{\alpha}$; and

schedule transmissions to the mobile stations according to the priority functions.

17.   (Previously Presented) The apparatus as in claim 16, wherein the processor is further configured to calculate the priority function using a monotonic function of $(T')^{\alpha}$.

18.   (Previously Presented) The apparatus of claim 16, wherein each of the rate request indicators is a data rate request received from one of the plurality of mobile stations.

19.   (Previously Presented) The apparatus of claim 16, wherein each of the rate request indicators is a carrier-to-interference ratio received from one of the plurality of mobile stations.

20.   (Previously Presented) The apparatus of claim 16, further comprising a transmitter configured to transmit data to the plurality of mobile stations in response to the scheduled transmissions.

21.   (Previously Presented) The apparatus of claim 16, wherein the processor is further configured to update the priority functions of scheduled mobile stations as a function of the rate request indicator.

22.   (Previously Presented) The apparatus of claim 21, wherein the processor is further configured to update the priority functions of non-scheduled mobile stations assuming the rate request indicator is equal to zero.

23.   (Previously Presented) A base station apparatus comprising:
    a base station transmitter;
    a memory storage device; and
    a processor coupled to said transmitter and memory storage device, the processor being
        configured to:
        receive a rate request indicator DRR for a mobile station;
        determine a fairness parameter α for the mobile station;
        calculate a projected throughput value T' for the mobile station as a function of the
            rate request indicator;
        calculate a priority function for the mobile station as $DRR/(T')^{\alpha}$; and
        schedule transmissions to the mobile stations according to the priority functions.